DOCUMENT RESUME

ED 230 261 JC 830 281

AUTHOR Quinley, John W.; And Others
TITLE Five-Year Credit Enrollment Projections by Age Cohort Groups. Harford Community College, Fall Semesters, 1983-1987.
INSTITUTION Harford Community Coll., Bel Air, MD. Office of Institutional Research.
PUB DATE May 83
NOTE 77p.; For a related document, see ED 223 305.
PUB TYPE Reports - Research/Technical (143) -- Statistical Data (110)

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS *Age; Cohort Analysis; Community Colleges; *Enrollment Projections; *Enrollment Trends; Females; Full Time Equivalency; Full Time Students; Males; Part Time Students; Population Trends; Two Year Colleges
IDENTIFIERS *Maryland

ABSTRACT

Credit enrollments at Harford Community College (HCC) are projected for fall semesters 1983 through 1987 by age conort groups. After introductory material discusses enrollment trends in community colleges in the United States and at HCC, the report indicates that enrollments were projected by determining the ratio of persons enrolled at the college to the number of persons living in the geographic area from which HCC draws its enrollments, and by using the most recent year (fall 1982) as the basis to project future years. Following a discussion of the factors that may affect future enrollments and a summary of findings, the report presents data tables and accompanying commentary providing projections by age cohort groups for the following data elements: total headcount; female and male enrollments; projected 5-year change in enrollment for total, male, and female headcounts; full-time/part-time headcount; credit hours carried; and full-time equivalent (FTE) enrollment. The report projects: (1) an annual increase of 1.0% to 1.5% between 1983 and 1985, followed by no increases in 1986 and 1987; (2) a 5.2% increase in female students and a 4.7% increase in male students by 1987; (3) a 7.5% growth in part-time students and a 1.5% decrease in full-time students by 1987; and (4) a decline in student numbers for the 17-19 and 31-35 age cohorts and an increase among 20-25, 26-30, 36-40 and 41 or over cohorts. Appendices include state census projections and HCC age distributions for fall 1979. (HB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED230261

FIVE-YEAR CREDIT ENROLLMENT PROJECTIONS BY AGE COHORT GROUPS

HARFORD COMMUNITY COLLEGE
FALL SEMESTERS, 1983-1987

Prepared by

Office of Institutional Research

John W. Quinley
Rosemary Karr
Patricia L. Ross

May, 1983

JC 830 281

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

J. W. Quinley

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

X Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

TABLE OF CONTENTS

	Page
LIST OF TABLES AND FIGURES	i-iii
NARRATIVE	
Introduction	1
Framework for Enrollment Projections	1
Summary	3
Figure 1	4
Total Headcount Projections	6
Table 1, Figure 2, Tables 2-4	7-11
Female Headcount Projections	12
Tables 5-8	13-16
Male Headcount Projections	17
Tables 9-12	18-21
Five-Year Change in Enrollment for Total, Female, and Male Headcount	22
Table 13	23
Full-Time/Part-Time Headcount	24
Tables 14-20	25-31
Total, Full-Time, and Part-Time FTE's	32
Tables 21-29	33-41
APPENDICES	
Appendix A--Harford Community College Registrar's Reports--Fall 1979, Fall 1980, Fall 1981, Fall 1982	42-45
Appendix B--Interim Projections by Age, Race and Sex, Maryland Department of State Planning, July 31, 1981	46-50
Appendix C--Updated Interim Porjections, Maryland Department of State Planning, March 30, 1982	51-53
Appendix D--Methodological Notes	54

LIST OF TABLES AND FIGURES

Table Number	Title	Page
1	Harford County Total Adult Population by Age Cohort Groups 1979-1987	7
2	Total Market Share by Age Cohort Groups, Fall Semesters 1979-1982	9
3	Actual and Projected Total Headcount by Age Cohort Groups, Fall Semesters 1979-1987	10
4	Actual and Projected Increase in Total Enrollments at Harford Community College, Fall Semesters 1979-1987	11
5	Harford County Female Population by Age Cohort Groups 1979-1987	13
6	Female Enrollment Market Share by Age Cohort Groups, Fall Semesters 1979-1982	14
7	Actual and Projected Female Headcount by Age Cohort Groups, Fall Semesters 1979-1987	15
8	Actual and Projected Increase in Female Enrollments at Harford Community College, Fall Semesters, 1979-1987	16
9	Harford County Male Population by Age Cohort Groups 1979-1987	18
10	Male Enrollment Market Share by Age Cohort Groups, Fall Semesters 1979-1982	19
11	Actual and Projected Male Headcount by Age Cohort Groups, Fall Semesters 1979-1987	20
12	Actual and Projected Increase in Male Enrollments at Harford Community College, Fall Semesters 1979-1987	21
13	Five-Year Change in Enrollments for Total, Female, and Male Headcount 1982-1987	23
14	Full-Time Enrollment Market Share by Age Cohort Groups, Fall Semesters 1979-1987	25
15	Actual and Projected Full-Time Headcount by Age Cohort Groups, Fall Semesters 1979-1987	26

Table Number	Title	Page
16	Actual and Projected Increase in Full-Time Enrollments at Harford Community College, Fall Semesters 1979-1987	27
17	Part-Time Enrollment Market Share by Age Cohort Groups, Fall Semesters 1979-1982	28
18	Actual and Projected Part-Time Headcount by Age Cohort Groups, Fall Semesters 1979-1987	29
19	Actual and Projected Increase in Part-Time Enrollments at Harford Community College, Fall Semesters 1979-1987	30
20	Five-Year Change in Enrollments for Total, Full-Time, and Part-Time Headcount 1982-1987	31
21	Average Credit Load by Age Cohort Groups, Full-Time/Part-Time, Fall, 1982	33
22	Actual and Projected Total FTE's by Age Cohort Groups, Fall Semesters 1982-1987	34
23	Actual and Projected Increase in Total FTE's at Harford Community College, Fall Semesters 1979-1987	35
24	Actual and Projected Full-Time FTE's by Age Cohort Groups, Fall Semesters 1982-1987	36
25	Actual and Projected Increase in Full-Time FTE's at Harford Community College, Fall Semesters 1979-1987	37
26	Actual and Projected Part-Time FTE's by Age Cohort Groups, Fall Semesters 1982-1987	38
27	Actual and Projected Increase in Part-Time FTE's at Harford Community College, Fall Semesters 1979-1987	39
28	Five-Year Change in Enrollments for Total, Full-Time, and Part-Time FTE's 1982-1987	40
29	Fiscal Years 1980-1988 Actual and Projected Increase in Total FTE's at Harford Community College	41

Figure Number	Title	Page
1	Credit Enrollment Trends, Fall Semesters 1979-1987	4
2	Harford County Population by Age Cohorts 1978-1990	8

FIVE-YEAR CREDIT
ENROLLMENT PROJECTIONS BY AGE COHORT GROUPS
FALL SEMESTERS, 1983-1987
HARFORD COMMUNITY COLLEGE

Introduction

The number of Americans aged 18 through 24 reached a peak in 1981 and will decline for the next 14 years. The number of high school graduates are predicted to decline by 25 percent or more during the 1980's. The Harford County school system lost 1,231 students from 1981 to 1982--5,360 over the past six years. Harford County's growth rate in the 1980's at 1.24 percent annually is half the rate experienced during the 1970's.

The above demographic trends are partially responsible for the enrollment stagnation or decline felt by many colleges. Especially hard hit were the four-year institutions which depend almost exclusively upon the traditional college-age student. On the other hand, the community college sector is in a better position to counteract enrollment drops because of its substantial age diversity among its student body. Indeed, some older age sectors within the adult population are projected to show an increase and, consequently, enrollments within these age cohorts will in all likelihood increase. However, replacing each traditional age student lost with an older student would still yield an FTE drop because older students tend to enroll to a greater extent on a part-time basis.

Beyond the demographic characteristics of the population from which a college draws its students and beyond the college's past enrollment track record, college enrollments are dependent upon several complex and changing factors. Current factors affecting future enrollments may differ substantially from factors which were operative in determining the enrollment of the present and past. Some factors may operate continuously over several years; others operate intermittently over a number of years; others operate for a short duration. Traditionally, collegiate enrollments have been primarily affected by the following variables: changes in the economy and the international situation, birth rates, veteran enrollments, educational loans, grants to institutions and individuals, high school enrollments, geographical migration, selective service drafts and deferments, interinstitutional competition, changing social attitudes toward the role of women and minorities, and changing occupational requirements.

Framework for Enrollment Projections

Of the several enrollment projection techniques normally employed to forecast college enrollments, the ratio method is best suited for projecting Harford Community College's enrollment over the next five years. This method determines the ratio of the number of persons enrolled at a college to the number of persons living in the geographic area where a college draws its enrollment. To compute this ratio, therefore, it is necessary to examine historical data detailing college and county population parameters.

Harford Community College Registrar's Reports and the Maryland Department of State Planning Interim Population Projections provide this necessary infor-

mation (see Appendix A, B, and C). In addition, the Department of State Planning projects Harford County population parameters to 1990. Therefore, if a determination can be made as to expected future enrollment ratios, projected student headcount can readily be determined by multiplying the ratio into the projected population parameters.

To determine future ratios (often referred to as market share), the median, most recent, mean, or linear regressed ratio is projected. The median, most recent, or mean ratio generally represents a middle level projection since the projection of college attendance is based upon a constant percentage of the college-age population. The linear regressed ratio represents a high or low level projection since trends continue in either an upward or a downward direction.

In the analysis that follows, the most recent year, the Fall of 1982, was used as the basis to project future years (see Appendix D). Projections were made on the basis of credit hours carried, gender, and FTE's, as well as by total headcount. Each of these data elements is presented in a series of tables with accompanying commentary. The data is also organized in a manner that facilitates additional analysis as may be deemed appropriate by various facets of the College community.

However, these projected figures are to be considered only as baseline data since enrollment trends are always subject to factors not necessarily predictable by past experience. Therefore, when interpreting the reported projections, personal judgment must also be exercised.

The results of last year's enrollment study supports this word of cation and the choice of methodology. Overall, the various age cohort market shares were relatively constant with the exception of the 17-19 age group. Therefore, the predicted headcount by age cohorts using the previous year ratios was close to the actual values with the one notable exception. This unexpected growth in young students is fully described and analyzed in an earlier study, "HCC Enrollment Analysis, Fall, 1982." If one of the other ratios were used, last year's 4 percent prediction error would have been greater.

Some factors that may affect future enrollments at Harford Community College include the new federal attitude toward higher education: increasing unemployment (and thus an increasing need for training); an effective marketing and admissions program, an expanded Aberdeen Proving Ground effort and changes in Federal regulations affecting armed services training; an honors program; increased retention vis a vis the developmental studies; growing fields such as data processing and electronics; increased participation among senior age groups; increased competition with four-year schools; and fluctuations in the state funding formula.

It is the intent of the Office of Institutional Research to distribute updated versions of these projections on an annual basis. It is hoped that these projections will support HCC's planning efforts throughout the institution.

Summary

Based on Census Data projections and College market shares, over the next five years growth in headcount at Harford Community College can best be characterized as relatively flat. Total Fall headcount is projected to grow to 4,913 by 1987, a 4.4 percent increase. This growth will occur primarily in the first three years at an approximate 1.0 to 1.5 percent rate through 1985 followed by a flat trend in 1986 and in 1987.

This forecast is similar to the National Center for Educational Statistics predictions which project an enrollment decline for two-year colleges of .5 percent in 1985, .4 percent in 1986, and .4 percent in 1987.

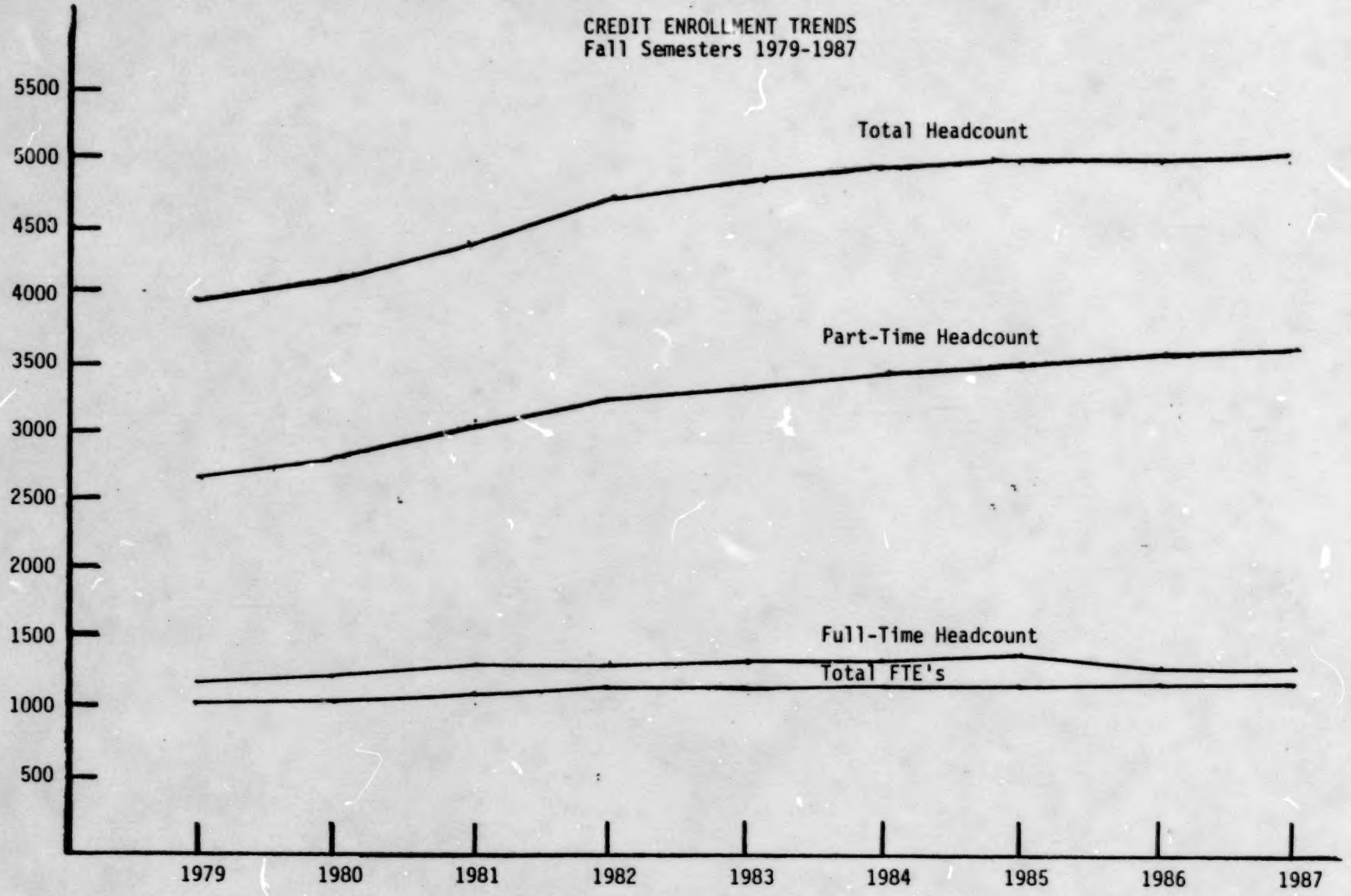
By gender, female students will continue to represent about 60 percent of the student body and by credit hours, part-time students will grow from 70 percent to about a 75 percent share of the total. Both the female and part-time categories will grow faster than their counterparts with females showing a slight edge over males, and part-timers showing a substantial gain over full-timers. By 1987, females will grow by a 5.2 percent increase contrasted to males who will grow by 4.7 percent. Part-timers will grow by a 7.5 percent growth while full-time students will decrease by 1.3 percent.

However, an examination of the above trends by age cohort groups indicates growth for some cohorts and maintenance or decline for others. In general, the 17-19 and the 31-35 cohorts will decline and the 20-25, 26-30, 36-40, and 41 and over cohorts will increase. The differences among some age cohort groups are quite pronounced. By 1984 the 17-19 year age cohort will be replaced by the 20-25 year group as the largest. However, the younger group will continue to generate the greatest number of FTE's. (See Table 20.)

Translating the growth in headcount to growth in FTE's yields a lesser rate driven by the greater proportional growth of part-time students and the decline of the full-time student segment. By 1987 FTE's will grow by 29 to 1,174, a 2.5 percent growth from 1,145 in 1982. This 2.5 percent FTE growth is contrasted to the 4.2 percent increase in total headcount enrollment. FTE's will grow at about 1.2 percent through 1985 and then drop by about .5 percent in 1986 and in 1987. (See Figure 1 for a graphic display of headcount and FTE projections to 1987.)

FIGURE 1

CREDIT ENROLLMENT TRENDS
Fall Semesters 1979-1987



Source: Five-Year Credit Enrollment Projections by Age Cohort Groups, Fall Semesters, 1983-1987, Harford Community College

In summary, the period of rapid growth in the College's enrollment has ended. The next five years will show a very modest growth in credit headcount and an even smaller growth in credit FTE's. By 1986, the College's full-time enrollment and FTE's will start to slowly decline. This decline will be partially affected by the non-credit sector which is expected to grow 5 percent each year. Total credit and non-credit FTE's are expected to increase modestly over the next five years showing an overall 9 percent increase.

TOTAL HEADCOUNT PROJECTIONS

Table 1 and Figure 2 show Harford County's population by age cohort groups, 1979-1987. Harford County is projected to grow by 10.1 percent from 1982 to 1987. However, an examination of this trend by age cohort groups indicates growth for some and decline for others. Specific projections are consistent decline for the 17-19 and 31-35 groups, decline then growth for 26-30 group, growth then decline for the 20-25 and 36-40 groups, and consistent growth for 41 and over group.

Table 2 details the percentage of Harford County residents by age cohort that attend Harford Community College (referred to as market share). Harford Community College's overall market share has been slowly increasing from 3.9 percent in 1979 to 4.4 percent in 1982. The market share by age cohort varies from 14.8 to 1.2 percent. The lower the age, the higher the market share percentage. The College's 17-19 market share showed a marked increase over last year.

Table 3 shows actual headcount from 1979 to 1982 and projected headcount (based on the 1982 market shares) from 1983 to 1987. The overall trend indicates a 4.4 percent increase while trends by age cohort vary widely.

Table 4 details the actual year by year percent change from 1979 to 1987 and the projected annual change for 1983 to 1987. Total headcount is estimated to grow at 1.0 to 1.5 percent until 1986 when it will remain flat.

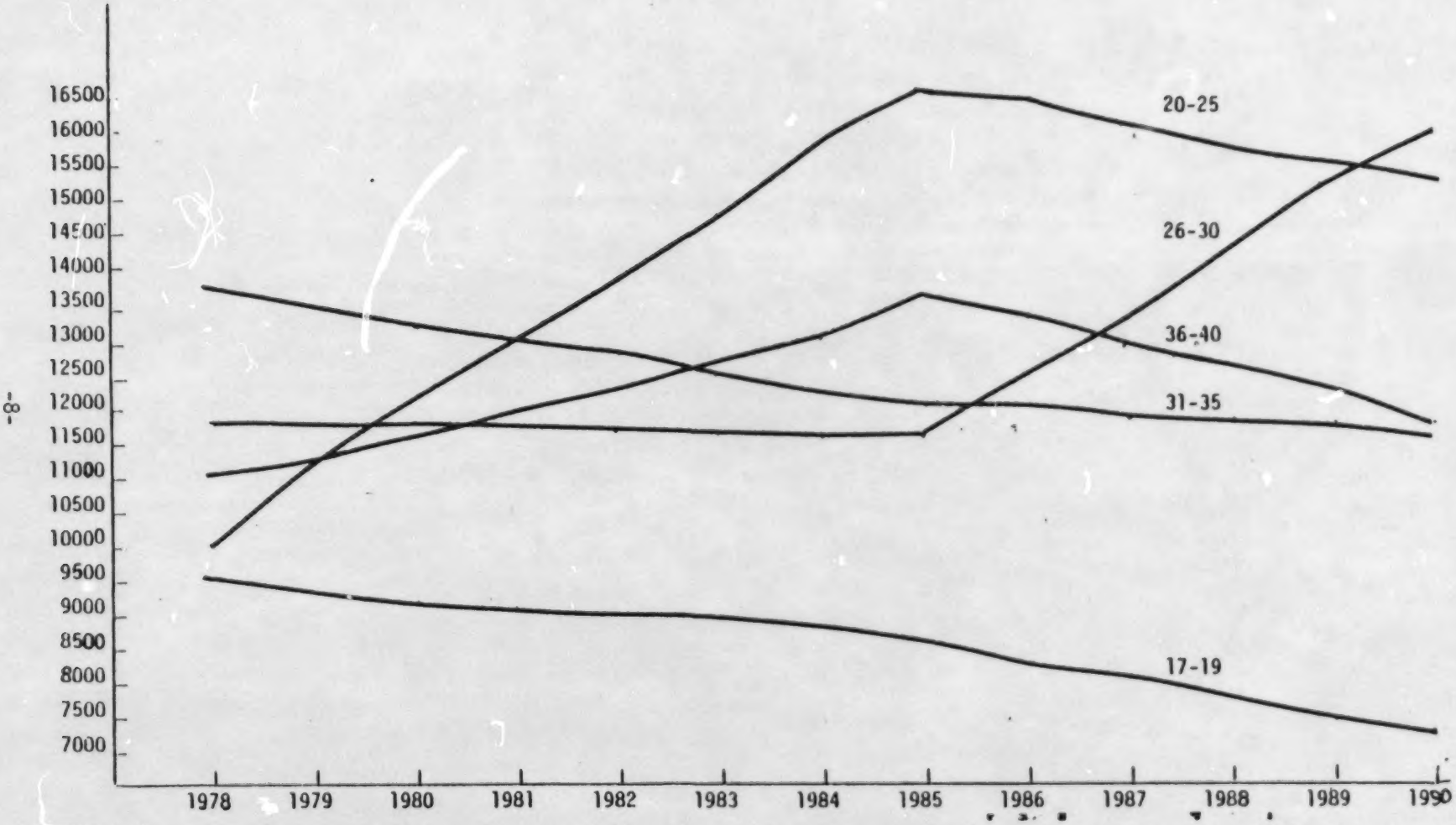
TABLE 1
HARFORD COUNTY TOTAL ADULT POPULATION BY AGE COHORT GROUPS
1979-1987

Ages	1979	1980	1981	1982	1983	1984	1985	1986	1987	Percent Change 1982-1987
17-19	9397	9281	9165	9049	8933	8817	8699	8458	8217	-9.2
20-25	11169	12046	12923	13800	14677	15554	16431	16234	16037	+16.2
26-30	11861	11835	11809	11783	11757	11731	11704	12586	13468	+14.3
31-35	13593	13338	13083	12828	12573	12318	12062	12007	11952	-6.8
36-40	11203	11617	12031	12445	12859	13273	13689	13404	13119	+5.4
41-over	43872	45383	46894	48405	49916	51427	52936	54700	56464	+16.6
Total	101095	103500	105905	108310	110715	113120	115521	117389	119257	+10.1

Source: Department of State Planning Interim Population Projections by Age, Race, and Sex, 1980-2000, March, 1982

Office of Institutional Research
5/83

FIGURE 2
HARFORD COUNTY POPULATION BY AGE COHORTS
1978-1990



NOTE: The 41 and over age cohort was excluded in the graph because of their relatively insignificant impact on college enrollment. The 41 and over population will increase 17 percent from 1981-1986 and 32 percent from 1981-1990.

Source: Department of State Planning Interim Population Projections by Age, Race and Sex, 1980-2000, March, 1982

TABLE 2
TOTAL MARKET SHARE BY AGE COHORT GROUPS
FALL SEMESTERS
1979-1982

Ages	1979	1980	1981	1982
17-19	11.2%	12.9%	12.8%	14.8%
20-25	9.3%	8.4%	8.8%	8.4%
26-30	4.9%	5.0%	5.4%	5.4%
31-35	3.7%	4.0%	4.6%	4.5%
36-40	3.0%	2.9%	3.0%	3.1%
41-over	1.1%	1.2%	1.1%	1.2%
Total	3.9%	4.0%	4.2%	4.3%

Sources: Registrar Reports--Fall 1979, Fall 1980, Fall 1981, Fall 1982
Department of State Planning Interim Population Projections by Age, Race and Sex, 1980-2000, March, 1982

Office of Institutional Research
5/83

TABLE 3
ACTUAL AND PROJECTED TOTAL HEADCOUNT BY AGE COHORT GROUPS
FALL SEMESTERS
1979-1987

	ACTUAL				PROJECTED					
Ages	1979	1980	1981	1982	1983	1984	1985	1986	1987	Percent Change 1982-1987
17-19	1055	1196	1174	1342	1322	1305	1287	1251	1216	-9.4
20-25	1034	1012	1133	1163	1233	1307	1380	1363	1347	+15.8
26-30	578	587	637	642	635	633	632	680	727	+13.2
31-35	501	528	602	580	566	554	543	540	538	-7.2
36-40	331	333	361	386	399	411	424	416	407	+5.4
41-over	474	524	528	593	599	617	635	656	678	+14.3
Total	3973	4180	4435	4706	4754	4827	4901	4906	4913	+4.4

Sources: Registrar Reports--Fall 1979, Fall 1980, Fall 1981, Fall 1982
Department of State Planning Interim Population Projections by Age, Race and Sex, 1980-2000, March, 1982

Office of Institutional Research
5/83

TABLE 4
ACTUAL AND PROJECTED INCREASE IN TOTAL ENROLLMENTS
AT HARFORD COMMUNITY COLLEGE
FALL SEMESTERS
1979-1987

FALL	TOTAL ENROLLMENT	PERCENT INCREASE (From Previous Year)
	A C T U A L	
1979	3973	+8.1
1980	4180	+5.2
1981	4435	+5.3
1982	4706	+6.1
	P R O J E C T E D	
1983	4754	+1.0
1984	4827	+1.4
1985	4901	+1.5
1986	4906	+ .1
1987	4913	+ .1
PERCENT CHANGE 1982-1987 = +4.4		

Sources: Registrar Reports--Fall 1979, Fall 1980, Fall 1981, Fall 1982
Department of State Planning Interim Population Projections by Age, Race and Sex, 1980-2000, March, 1982

Office of Institutional Research
5/83

FEMALE HEADCOUNT PROJECTIONS

Table 5 shows Harford County's female population by age cohort groups, 1979-1987. Harford County's female population is projected to grow by 10 percent from 1982 to 1987. However, an examination of this trend by age cohort groups indicates growth for some and decline for others.

Table 6 details the percentage of Harford County's female residents by age cohort that attend Harford Community College (referred to as market share). Harford Community College's overall female market share has been slowly increasing from 4.6 percent in 1979 to 5.3 percent in 1982. The market share by age cohort varies from 16.8 to 1.6 percent. The 17-19 age cohort market share markedly increased in 1982.

Table 7 shows actual female headcount from 1979 to 1982 and projected headcount (based on 1982 market shares) from 1983 to 1987. The overall trend indicates a 5.2 percent increase while trends by age cohort vary widely.

Table 8 details the actual year by year percent change from 1979-1982 and the projected annual change from 1983-1987. Female headcount is estimated to grow at around 1.5 percent until 1986 when it will remain flat.

TABLE 5
HARFORD COUNTY FEMALE POPULATION BY AGE COHORT GROUPS
1979-1987

Ages	1979	1980	1981	1982	1983	1984	1985	1986	1987	Percent Change 1982-1987
17-19	4246	4230	4214	4198	4182	4166	4150	4034	3918	-6.7
20-25	5452	5766	6080	6394	6708	7022	7337	7290	7243	+13.3
26-30	6021	6030	6039	6048	6057	6066	6073	6380	6687	+10.6
31-35	6903	6779	6655	6531	6407	6283	6157	6154	6151	-5.8
36-40	5626	5834	6051	6268	6485	6702	6920	6783	6646	+6.0
41-over	22578	23393	24208	25023	25838	26653	27469	28433	29397	+17.5
Total	50806	52032	53247	54462	55677	56892	58106	59074	60042	+10.2

Source: Department of State Planning Interim Population Projections by Age, Race and Sex, 1980-2000, March, 1982

Office of Institutional Research
5/83

TABLE 6
FEMALE ENROLLMENT MARKET SHARE BY AGE COHORT GROUPS
FALL SEMESTERS
1979-1982

Ages	1979	1980	1981	1982
17-19	14.2%	15.1%	14.9%	16.8%
20-25	10.6%	10.0%	9.9%	10.1%
26-30	5.4%	6.1%	6.6%	6.9%
31-35	4.7%	5.3%	6.1%	6.1%
36-40	4.1%	4.4%	4.3%	4.5%
41-over	1.3%	1.3%	1.4%	1.6%
Total	4.6%	4.8%	5.0%	5.3%

Sources: Registrar Reports--Fall 1979, Fall 1980, Fall 1981, Fall 1982
Department of State Planning Interim Population Projections by Age, Race and Sex, 1980-2000, March, 1982

Office of Institutional Research
5/83

TABLE 7
ACTUAL AND PROJECTED FEMALE HEADCOUNT BY AGE COHORT GROUPS
FALL SEMESTERS
1979-1987

Ages	ACTUAL				PROJECTED					Percent Change 1982-1987
	1979	1980	1981	1982	1983	1984	1985	1986	1987	
17-19	605	639	627	705	703	700	697	678	658	-6.7
20-25	577	575	603	646	678	709	741	736	732	+13.3
26-30	327	367	398	417	418	419	419	440	461	+10.6
31-35	322	358	406	398	391	383	376	375	376	-5.5
36-40	229	256	261	282	292	302	311	305	299	+6.0
41-over	287	314	350	400	413	426	440	455	470	+17.5
Total	2347	2509	2645	2848	2895	2939	2984	2989	2996	+5.2

Sources: Registrar Reports--Fall 1979, Fall 1980, Fall 1981, Fall 1982
Department of State Planning Interim Population Projections by Age, Race and Sex, 1980-2000, March, 1982

Office of Institutional Research
5/83

TABLE 8
ACTUAL AND PROJECTED INCREASE IN FEMALE ENROLLMENTS
AT HARFORD COMMUNITY COLLEGE
FALL SEMESTERS
1979-1987

FALL	FEMALE ENROLLMENT	PERCENT INCREASE (From Previous Year)
	A C T U A L	
1979	2347	+12.0
1980	2509	+7.0
1981	2645	+5.4
1982	2848	+7.7
	P R O J E C T E D	
1983	2895	+1.7
1984	2939	+1.5
1985	2984	+1.5
1986	2989	+.2
1987	2996	+.2

PERCENT CHANGE 1982-1987 = +5.2

Sources: Registrar Reports--Fall 1979, Fall 1980, Fall 1981, Fall 1982
Department of State Planning Interim Population Projections by Age, Race and Sex, 1980-2000, March, 1982

Office of Institutional Research
5/83

MALE HEADCOUNT PROJECTIONS

Table 9 shows Harford County's male population by age cohort groups, 1979-1987. Harford County's male population is projected to grow by 10.0 percent from 1982 to 1987. However, an examination of this trend by age cohort groups indicates growth for some and decline for others.

Table 10 details the percentage of Harford County's male residents by age cohort that attend Harford Community College (referred to as market share). Harford Community College's overall market share has remained flat ranging from 3.2 to 3.4 percent. The market share by age cohort varies from 13.1 to .8 percent. The 17-19 age cohort market share markedly increased in 1982.

Table 11 shows actual male headcount from 1979 to 1982 and projected headcount (based on the 1982 market shares) from 1983 to 1987. The overall trend indicates a 4.7 percent increase while trends by age cohort vary widely.

Table 12 details the actual year by year percent change from 1979-1982 and the projected annual change from 1983-1987. Male headcount is estimated to grow at around 1.6 percent until 1986 when it will remain flat.

TABLE 9
HARFORD COUNTY MALE POPULATION BY AGE COHORT GROUPS
1979-1987

Ages	1979	1980	1981	1982	1983	1984	1985	1986	1987	Percent Change 1982-1987
17-19	5151	5051	4951	4851	4751	4651	4549	4424	4299	-11.4
20-25	5717	6280	6843	7406	7969	8532	9094	8944	8794	+18.7
26-30	5840	5805	5770	5735	5700	5665	5631	6206	6781	+18.2
31-35	6690	6559	6428	6297	6166	6035	5905	5853	5801	-7.9
36-40	5585	5783	5981	6179	6377	6575	6769	6621	6473	+4.8
41-over	21295	21990	22685	23380	24075	24770	25467	26267	27067	+15.8
Total	50278	51468	52658	53848	55038	56228	57415	58315	59215	+10.0

Source: Department of State Planning Interim Population Projections by Age, Race and Sex, 1980-2000, March, 1982

Office of Institutional Research
5/83

TABLE 10
MALE ENROLLMENT MARKET SHARE BY AGE COHORT GROUPS
FALL SEMESTERS
1979-1982

Ages	1979	1980	1981	1982
17-19	8.7%	11.0%	11.0%	13.1%
20-25	8.0%	7.0%	7.7%	7.0%
26-30	4.4%	3.5%	3.5%	4.0%
31-35	2.7%	2.6%	3.0%	3.0%
36-40	1.8%	1.3%	1.7%	1.7%
41-over	.9%	1.0%	.8%	.8%
Total	3.2%	3.2%	3.4%	3.4%

Sources: Registrar Reports--Fall 1979, Fall 1980, Fall 1981, Fall 1982
Department of State Planning Interim Population Projections by Age, Race and Sex, 1980-2000, March, 1982

Office of Institutional Research
5/83

TABLE 11
ACTUAL AND PROJECTED MALE HEADCOUNT BY AGE COHORT GROUPS
FALL SEMESTERS
1979-1987

Ages	ACTUAL				PROJECTED					Percent Change 1982-1987
	1979	1980	1981	1982	1983	1984	1985	1986	1987	
17-19	450	557	547	636	622	609	596	580	563	-11.5
20-25	457	437	530	518	558	597	637	626	616	+18.9
26-30	251	220	239	229	228	227	225	248	271	+18.3
31-35	179	170	196	189	185	181	177	176	174	-7.9
36-40	102	77	100	105	108	112	115	113	110	+4.8
41-over	187	210	178	187	193	198	204	210	217	+16.0
Total	1626	1671	1790	1864	1894	1924	1954	1953	1951	+4.7

Sources: Registrar Reports--Fall 1979, Fall 1980, Fall 1981, Fall 1982
Department of State Planning Interim Population Projections by Age, Race and Sex, 1980-2000, March, 1982

Office of Institutional Research
5/83

TABLE 12
ACTUAL AND PROJECTED INCREASE IN MALE ENROLLMENTS
AT HARFORD COMMUNITY COLLEGE
FALL SEMESTERS
1979-1987

FALL	MALE ENROLLMENT	PERCENT INCREASE (From Previous Year)
	A C T U A L	
1979	1626	+3.0
1980	1671	+2.8
1981	1790	+7.1
1982	1864	+4.1
	P R O J E C T E D	
1983	1894	+1.6
1984	1924	+1.6
1985	1954	+1.6
1986	1953	-.1
1987	1951	-.1
PERCENT CHANGE 1982-1987 = +4.7		

Sources: Registrar Reports--Fall 1979, Fall 1980, Fall 1981, Fall 1982
Department of State Planning Interim Population Projections by Age, Race and Sex, 1980-2000, March, 1982

Office of Institutional Research
5/83

FIVE-YEAR CHANGE IN ENROLLMENT FOR TOTAL, FEMALE, AND MALE HEADCOUNT

Table 13 shows the five-year projected change in enrollments for total, female, and male hedcount from 1982 to 1987. Overall, total headcount increased 4.4 percent, female headcount grew by 5.2 percent, and male headcount increased by 4.7 percent.

TABLE 13
FIVE-YEAR CHANGE IN ENROLLMENTS FOR TOTAL, FEMALE, AND MALE HEADCOUNT
1982-1987

Ages	Total Headcount		Female		Male	
	Number	Percent	Number	Percent	Number	Percent
17-19	-126	-9.4	-47	-6.7	-73	-11.5
20-25	184	15.8	86	13.3	98	18.9
26-30	85	13.2	44	10.6	42	18.3
31-35	-42	-7.2	-22	-5.5	-15	-7.9
36-40	21	5.4	17	6.0	5	4.8
41-over	85	14.3	70	17.5	30	16.0
Total	207	4.4	148	5.2	87	4.7

Sources: Registrar Reports--Fall 1981, Fall 1982
Department of State Planning Interim Population Projections by Age, Race, and Sex, 1980-2000, March, 1982

Office of Instituitonal Research
5/83

FULL-TIME/PART-TIME HEADCOUNT

Table 14 details the percentage of Harford County residents by age cohort that attend Harford Community College full-time (referred to as market share). Harford Community College's overall full-time market share has remained flat since 1979. The market share trend by age cohort varies from 9.6 to .05 percent. The 17-19 age cohort markedly increased in 1982.

Table 15 shows actual full-time headcount from 1979 to 1982 and projected headcount (based on the 1982 market shares) from 1983 to 1987. The overall trend indicates a 1.3 percent decline while trends by age cohort vary widely.

Table 16 details the actual year by year percent change from 1979-1982 and the projected annual change from 1983-1987. Total full-time headcount is estimated to grow at around .8 to .6 percent through 1985 and then drop by 1.6 percent in 1986 and 1987.

Table 17 details the percentage of Harford County residents by age cohort that attend Harford Community College part-time (referred to as market share). Harford Community College's overall market share has been slowly increasing from 2.73 percent in 1979 to 3.12 percent in 1982. The market share trend by age cohort varies from 6.19 to 1.17 percent. The 17-19 age cohort market share markedly increased in 1982.

Table 18 shows actual part-time headcount from 1979 to 1982 and projected headcount (based on the 1982 market shares) from 1983 to 1987. The overall trend indicates a 7.5 percent increase while trends by age cohort vary widely.

Table 19 details the actual year by year part-time percent change from 1979-1982 and the projected annual change from 1983-1987. Total part-time headcount is estimated to grow at around 2 percent until 1986 when it will grow at just under 1 percent.

Table 20 shows the five-year projected change in enrollments for total, full-time, and part-time headcount from 1982 to 1987. Overall, total headcount increased 4.4 percent, full-time headcount decreased 1.3 percent, and part-time headcount increased 7.5 percent.

TABLE 14
FULL-TIME ENROLLMENT MARKET SHARE BY AGE COHORT GROUPS
FALL SEMESTERS
1979-1982

Ages	1979	1980	1981	1982
17-19	7.85%	8.89%	8.78%	9.61%
20-25	2.73%	2.37%	2.54%	2.25%
26-30	.60%	.66%	.69%	.57%
31-35	.31%	.33%	.36%	.27%
36-40	.22%	.28%	.22%	.14%
41-over	.07%	.07%	.04%	.05%
Total	1.20%	1.25%	1.23%	1.22%

Sources: Registrar Reports--Fall 1979, Fall 1980, Fall 1981, Fall 1982
Department of State Planning Interim Population Projections by Age, Race and Sex, 1980-2000, March, 1982

Office of Institutional Research
5/83

TABLE 15
ACTUAL AND PROJECTED FULL-TIME HEADCOUNT BY AGE COHORT GROUPS
FALL SEMESTERS
1979-1987

Ages	ACTUAL				PROJECTED					Percent Change 1982-1987
	1979	1980	1981	1982	1983	1984	1985	1986	1987	
17-19	738	825	805	870	859	848	836	813	790	-9.2
20-25	305	286	328	310	330	349	369	365	360	+16.1
26-30	71	78	81	67	67	67	67	72	77	+14.9
31-35	42	44	47	34	33	33	32	32	32	-5.9
36-40	25	33	26	18	19	19	20	19	19	+5.6
41-over	32	30	19	25	26	27	27	28	29	+16.0
Total	1213	1296	1306	1324	1334	1343	1351	1329	1307	-1.3

Sources: Registrar Reports--Fall 1979, Fall 1980, Fall 1981, Fall 1982
Department of State Planning Interim Population Projections by Age, Race and Sex, 1980-2000, March, 1982

Office of Institutional Research
5/83

TABLE 16
ACTUAL AND PROJECTED INCREASE IN FULL-TIME ENROLLMENTS
AT HARFORD COMMUNITY COLLEGE
FALL SEMESTERS
1979-1987

FALL	FULL-TIME ENROLLMENT	PERCENT INCREASE (From Previous Year)
	ACTUAL	
1979	1213	+17.8
1980	1296	+6.9
1981	1306	+.8
1982	1324	+1.4
	PROJECTED	
1983	1334	+.8
1984	1343	+.7
1985	1351	+.6
1986	1329	-1.6
1987	1307	-1.6

PERCENT CHANGE 1982-1987 = -1.3

Sources: Registrar Reports--Fall 1979, Fall 1980, Fall 1981, Fall 1982
Department of State Planning Interim Population Projections by Age, Race and Sex, 1980-2000, March, 1982

Office of Institutional Research
5/83

TABLE 17
PART-TIME ENROLLMENT MARKET SHARE BY AGE COHORT GROUPS
FALL SEMESTERS
1979-1982

Ages	1979	1980	1981	1982
17-19	3.38%	4.00%	4.04%	5.20%
20-25	6.53%	6.03%	6.24%	6.19%
26-30	4.28%	4.30%	4.71%	4.88%
31-35	3.37%	3.63%	4.24%	4.26%
36-40	2.73%	2.58%	2.78%	2.96%
41-over	1.01%	1.09%	1.09%	1.17%
Total	2.73%	2.79%	2.96%	3.12%

Sources: Registrar Reports--Fall 1979, Fall 1980, Fall 1981, Fall 1982
Department of State Planning Interim Population Projections by Age, Race and Sex, 1980-2000, March, 1982

Office of Institutional Research
5/83

TABLE 18
ACTUAL AND PROJECTED PART-TIME HEADCOUNT BY AGE COHORT GROUPS
FALL SEMESTERS
1979-1987

Ages	ACTUAL				PROJECTED					Percent Change 1982-1987
	1979	1980	1981	1982	1983	1984	1985	1986	1987	
17-19	318	371	370	471	465	459	453	440	428	-9.1
20-25	729	726	806	854	908	963	1017	1005	992	+16.2
26-30	507	509	556	575	574	573	571	614	657	+14.3
31-35	458	484	555	546	535	524	513	511	509	-6.8
36-40	306	300	335	368	380	393	405	396	388	+5.4
41-over	442	494	509	568	586	603	621	642	663	+16.7
Total	2760	2884	3131	3382	3448	3515	3580	3608	3637	+7.5

Sources: Registrar Reports--Fall 1979, Fall 1980, Fall 1981, Fall 1982
Department of State Planning Interim Population Projections by Age, Race and Sex, 1980-2000, March, 1982

Office of Institutional Research
5/83

TABLE 19
ACTUAL AND PROJECTED INCREASE IN PART-TIME ENROLLMENTS
AT HARFORD COMMUNITY COLLEGE
FALL SEMESTERS
1979-1987

FALL	PART-TIME ENROLLMENT	PERCENT INCREASE (From Previous Year)
	A C T U A L	
1979	2760	+3.6
1980	2884	+4.5
1981	3131	+8.6
1982	3382	+8.0
	P R O J E C T E D	
1983	3448	+2.0
1984	3515	+1.9
1985	3580	+1.9
1986	3608	+0.8
1987	3637	+0.8
PERCENT CHANGE 1982-1987 = +7.5		

Sources: Registrar Reports--Fall 1979, Fall 1980, Fall 1981, Fall 1982
Department of State Planning Interim Population Projections by Age, Race and Sex, 1980-2000, March, 1982

Office of Institutional Research
5/83

TABLE 20
FIVE-YEAR CHANGE IN ENROLLMENTS FOR TOTAL,
FULL-TIME, AND PART-TIME HEADCOUNT
1982-1987

Ages	Total Headcount		Full-Time Headcount		Part-Time Headcount	
	Number	Percent	Number	Percent	Number	Percent
17-19	-126	-9.4	-80	-9.2	-43	-9.1
20-25	184	15.8	50	16.1	138	16.2
26-30	85	13.2	10	14.9	82	14.3
31-35	-42	-7.2	-2	-5.9	-37	-6.8
36-40	21	5.4	1	5.6	20	5.4
41-over	85	14.3	4	16.0	95	16.7
Total	207	4.4	-17	-1.3	255	7.5

Note: Totals may differ an insignificant amount due to rounding process.

Sources: Registrar Reports--Fall 1982
Department of State Planning Interim Population Projections by Age, Race and Sex, 1980-2000, March, 1982

Office of Institutional Research
5/83

TOTAL, FULL-TIME, AND PART-TIME FTE'S

Table 21 shows the average credit load carried by age cohort groups for full-time and for part-time students in 1982. In general, the younger the student, the greater the credit load carried for both full-time and part-time groups.

Table 22 shows actual FTE's for 1982 and projected FTE's (based on 1982 average credit load by age cohort) from 1983 to 1987. The overall trend indicates a 2.5 percent increase while trends by age cohort vary widely.

Table 23 details the actual year by year percent change from 1979-1982 and the projected annual change from 1983-1987. Total FTE's are estimated to grow just over 1 percent until 1986 when it will decline by approximately .5 percent.

Table 24 shows actual full-time FTE's in 1982 and projected full-time FTE's (based on the average credit load by age cohort) from 1983 to 1987. The overall trend indicates a 1.4 percent decline while trends by age cohort vary widely.

Table 25 details the actual year by year percent change from 1979-1987 and the projected annual change from 1983-1987. Total full-time FTE's are projected to increase by .5 to .7 percent through 1985 and then decline by 1.6 percent in 1986 and 1987.

Table 26 shows actual part-time FTE's in 1982 and projected part-time FTE's (based on the average credit load by age cohort) from 1983 to 1987. The overall trend indicates a 6.9 percent increase while trends by age cohort vary widely.

Table 27 details the actual year by year percent change from 1979-1982 and the projected annual change from 1983-1987. Part-time FTE's are estimated to grow just under 2 percent through 1985 and then drop by .5 percent in 1986 and .7 percent in 1987.

Table 28 shows the five-year projected change in FTE's for total, full-time, and part-time enrollments. Total FTE's will increase 2.5 percent with full-time at a 1.4 percent decrease and part-time at a 6.9 percent increase.

Table 29 details the actual year by year percent change from FY 1980 to FY 1983 and the projected annual change from FY 1984 to FY 1988. Total FTE's will increase at an average of 1.3 percent through FY 1986 and then drop by .6 percent in FY 1987 and FY 1988.

TABLE 21
AVERAGE CREDIT LOAD BY AGE COHORT GROUPS
FULL-TIME/PART-TIME
FALL, 1982

AGES	FULL-TIME	PART-TIME
17-19	13.83	6.16
20-25	13.51	5.15
26-30	13.56	4.79
31-35	13.97	4.50
36-40	13.10	4.20
41-over	13.25	3.76

Source: Job STT600A Credit Hours by Descending Birth Date - 04/14/83

Office of Institutional Research
5/83

TABLE 22
ACTUAL AND PROJECTED TOTAL FTE'S BY AGE COHORT GROUPS
FALL SEMESTERS
1982-1987

Ages	Actual 1982	1983	1984	1985	1986	1987	Percent Change 1982-1987
17-19	497.81	491.48	485.18	478.42	465.14	452.08	-9.2
20-25	286.20	304.48	322.49	340.76	336.90	332.41	+16.1
26-30	122.09	121.93	121.77	121.45	130.58	139.7	+14.4
31-35	97.73	95.62	93.97	91.85	91.55	91.25	-6.6
36-40	59.38	61.50	63.32	65.43	63.74	62.62	+5.4
41-over	82.23	84.93	87.51	89.76	92.83	95.91	+16.6
Total	1145	1160	1174	1188	1181	1174	+2.5

Sources: Registrar Reports--Fall 1979, Fall 1980, Fall 1981, Fall 1982
Department of State Planning Interim Population Projections by Age, Race and Sex, 1980-2000, March, 1982

Office of Institutional Research
5/83

TABLE 23
ACTUAL AND PROJECTED INCREASE IN TOTAL FTE'S
AT HARFORD COMMUNITY COLLEGE
FALL SEMESTERS
1979-1987

FALL	TOTAL FTE'S	PERCENT INCREASE (From Previous Year)
	A C T U A L	
1979	1012	+10.5
1980	1061	+4.8
1981	1099	+1.5
1982	1145	+4.2
	P R O J E C T E D	
1983	1160	+1.3
1984	1174	+1.2
1985	1188	+1.2
1986	1181	-.6
1987	1174	-.6
PERCENT CHANGE 1982-1987 = +2.5		

Sources: Registrar Reports--Fall 1979, Fall 1980, Fall 1981, Fall 1982
Department of State Planning Interim Population Projections by Age, Race and Sex, 1980-2000, March, 1982

Office of Institutional Research
5/83

TABLE 24
ACTUAL AND PROJECTED FULL-TIME FTE'S BY AGE COHORT GROUPS
FALL SEMESTERS
1982-1987

Ages	Actual 1982	1983	1984	1985	1986	1987	Percent Change 1982-1987
17-19	401.10	396.00	390.93	385.40	374.79	364.20	-9.20
20-25	139.60	148.61	157.17	166.17	164.37	162.12	+16.11
26-30	30.28	30.28	30.28	30.28	32.54	34.80	+14.91
31-35	15.83	15.37	15.37	14.90	14.90	14.90	-5.97
36-40	7.86	8.30	8.30	8.73	8.30	8.30	+5.61
41-over	11.04	11.48	11.93	11.93	12.37	12.81	+16.01
Total	605.71	610.04	613.98	617.41	607.27	597.13	-1.41

Sources: Registrar Reports--Fall 1979, Fall 1980, Fall 1981, Fall 1982
Department of State Planning Interim Population Projections by Age, Race and Sex, 1980-2000, March, 1982

Office of Institutional Research
5/83

TABLE 25
ACTUAL AND PROJECTED INCREASE IN FULL-TIME FTE'S
AT HARFORD COMMUNITY COLLEGE
FALL SEMESTERS
1979-1987

FALL	FULL-TIME FTE'S	PERCENT INCREASE (From Previous Year)
	ACTUAL	
1979	570	+1.8
1980	600	+5.3
1981	601	+.2
1982	606	+.8
	PROJECTED	
1983	610	+.7
1984	614	+.7
1985	617	+.5
1986	607	-1.6
1987	597	-1.6
PERCENT CHANGE 1982-1987 = -1.4		

Sources: Registrar Reports--Fall 1979, Fall 1980, Fall 1981, Fall 1982
Department of State Planning Interim Population Projections by Age, Race and Sex, 1980-2000, March, 1982

Office of Institutional Research
5/83

TABLE 26
ACTUAL AND PROJECTED PART-TIME FTE'S BY AGE COHORT GROUPS
FALL SEMESTERS
1982-1987

Ages	Actual 1982	1983	1984	1985	1986	1987	Percent Change 1982-1987
17-19	96.71	95.48	94.25	93.02	90.35	87.88	-9.1
20-25	146.60	155.87	165.32	174.59	172.53	170.29	+16.2
26-30	91.81	91.65	91.49	91.17	98.04	104.90	+14.3
31-35	81.9	80.25	78.6	76.95	76.65	76.35	-6.8
36-40	51.52	53.2	55.02	56.7	55.44	54.32	+5.4
41-over	71.19	73.45	75.58	77.83	80.46	83.10	+16.7
Total	539.73	549.90	560.26	570.26	573.47	576.84	+6.9

Sources: Registrar Reports--Fall 1979, Fall 1980, Fall 1981, Fall 1982
Department of State Planning Interim Population Projections by Age, Race and Sex, 1980-2000, March, 1982

Office of Institutional Research
5/83

TABLE 27
ACTUAL AND PROJECTED INCREASE IN PART-TIME FTE'S
AT HARFORD COMMUNITY COLLEGE
FALL SEMESTERS
1979-1987

FALL	PART-TIME FTE'S	PERCENT INCREASE (From Previous Year)
	A C T U A L	
1979	442	+2.3
1980	461	+4.5
1981	500	+8.2
1982	540	+8.0
	P R O J E C T E D	
1983	550	+1.9
1984	560	+1.8
1985	570	+1.8
1986	573	+.5
1987	577	+.7

PERCENT CHANGE 1982-1987 = +6.9

Sources: Registrar Reports--Fall 1979, Fall 1980, Fall 1981, Fall 1982
Department of State Planning Interim Population Projections by Age, Race and Sex, 1980-2000, March, 1982

Office of Institutional Research
5/83

TABLE 28
FIVE-YEAR CHANGE IN ENROLLMENTS FOR TOTAL,
FULL-TIME, AND PART-TIME FTE'S
1982-1987

Ages	Total		Full-Time		Part-Time	
	Number	Percent	Number	Percent	Number	Percent
17-19	-45.73	-9.2	-36.9	-9.20	-8.83	-9.1
20-25	46.21	16.1	22.52	16.1	23.69	16.2
26-30	17.61	14.4	4.52	14.9	13.09	14.3
31-35	-6.48	-6.6	-.93	-5.9	-5.55	-6.8
36-40	3.24	5.4	.44	5.6	2.80	5.4
41-over	13.68	16.6	1.76	16.0	11.91	16.7
Total	29	2.5	-8.58	-1.4	37.11	6.9

Note: Totals may differ an insignificant amount due to rounding process.

Sources: Registrar Reports--Fall 1982
Department of State Planning Interim Population Projections by Age, Race and Sex, 1980-2000, March, 1982

Office of Institutional Research
5/83

TABLE 29
FISCAL YEARS 1980-1988
ACTUAL AND PROJECTED INCREASE IN TOTAL FTE'S
AT HARFORD COMMUNITY COLLEGE

FISCAL YEAR	TOTAL FTE'S	PERCENT INCREASE (From Previous Year)
	A C T U A L	
1980	2138.8	+5.8
1981	2253.5	+5.4
1982	2318.9	+2.9
1983	2412.3	+4.0
	P R O J E C T E D*	
1984	2448.0	+1.5
1985	2477.5	+1.2
1986	2507.1	+1.2
1987	2492.3	-.6
1988	2477.5	-.6

PERCENT CHANGE 1982-1987 = +2.7

Sources: Registrar Reports--Fall 1979, Fall 1980, Fall 1981, Fall 1982
Department of State Planning Interim Population Projections by Age, Race and Sex, 1980-2000, March, 1982

*Projections based on a Fall to Year Credit Multiplier of 2.110314 calculated from FY 1983 values.

Office of Institutional Research
5/83

HARFORD COMMUNITY COLLEGE
461 DISTRIBUTION
FALL 1979 09/29/79

PICS56
PAGE: 21

AGE	FULL-TIME DAY M	DAY F	EVE M	EVE F	161 M	161 F	PART-TIME DAY M	DAY F	EVE M	EVE F	101 M	101 F	COMBINED DAY M	DAY F	LVE M	LVE F	ICT M	ICT F	GRAND TOTAL	PERCENT OF TOTAL COUNT
UNDER 18	48	54	0	1	48	55	12	22	13	17	25	39	60	76	13	13	73	94	167	4.2%
18	163	227	1	1	164	228	26	48	15	38	41	86	189	275	16	39	205	314	515	13.1%
19	110	123	4	2	114	125	24	31	32	38	52	69	134	154	30	40	170	194	364	9.2%
20	58	63	0	2	58	65	18	33	41	36	59	69	76	90	41	38	117	134	251	6.3%
21 - 25	76	99	4	1	80	100	85	137	173	203	258	340	161	236	177	204	338	440	778	19.7%
26 - 30	25	41	4	1	29	42	62	105	159	178	221	283	87	148	163	179	250	325	573	14.5%
31 - 35	11	27	4	0	15	27	29	124	134	169	163	293	40	151	118	169	178	326	498	12.2%
36 - 40	5	18	2	0	7	18	14	84	80	126	94	210	19	102	82	126	101	228	329	8.3%
41 - 45	4	9	1	0	5	9	7	42	67	83	74	125	11	51	68	83	79	134	213	5.4%
46 - 50	5	7	1	0	6	7	8	27	36	49	44	76	13	34	37	49	56	83	133	3.4%
51 - 55	1	1	0	0	1	1	8	7	14	24	22	31	9	8	14	24	23	32	55	1.4%
56 - 59	0	1	0	0	0	1	3	9	8	10	11	19	3	10	8	10	11	20	31	0.8%
60 PLUS	1	1	0	0	1	1	6	9	16	7	22	16	7	10	16	7	23	17	40	1.0%

TOTAL COUNT: 3953

NUMBER OF OCCURENCES OF INVALID DATA: 20
(BIRTH DATE)

APPENDIX A

BEST COPY AVAILABLE

HARFORD COMMUNITY COLLEGE
AGE DISTRIBUTION
FALL 1980 09/24/80

M10550

AGE	FULL-TIME DAY M	DAY F	EVE M	EVE F	TOT M	TOT F	PART-TIME DAY M	DAY F	EVE M	EVE F	TOT M	TOT F	COMBINED DAY M	DAY F	EVE M	EVE F	TOT M	TOT F	GRAND TOTAL	PERCENT OF TOTAL COUNT
UNDER 18	49	65	1	2	50	67	19	31	15	15	34	46	68	96	16	17	84	113	197	4.7%
18	187	200	1	0	188	200	36	39	30	31	66	70	223	239	31	31	254	270	524	12.5%
19	146	168	5	1	151	169	33	49	35	38	68	87	179	217	40	39	219	256	475	11.4%
20	58	58	0	1	58	59	25	39	27	44	52	83	83	97	27	45	110	142	252	6.0%
21 - 25	66	98	2	3	68	101	69	135	190	197	259	332	135	233	192	200	327	433	760	18.2%
26 - 30	22	52	3	1	25	53	54	126	141	188	195	314	76	178	144	189	220	367	587	14.0%
31 - 35	9	34	1	0	10	34	34	137	126	187	160	324	43	171	127	187	170	358	528	12.6%
36 - 40	9	22	2	0	11	22	9	90	57	144	66	234	18	112	59	144	77	256	333	8.0%
41 - 45	5	8	2	0	7	8	5	53	62	74	67	127	10	61	64	74	74	135	209	5.0%
46 - 50	3	6	0	0	3	6	13	34	38	46	51	80	16	40	38	46	54	86	140	3.3%
51 - 55	1	0	0	0	1	0	8	12	26	28	34	40	9	12	26	28	35	40	75	1.8%
56 - 59	1	0	0	0	1	0	3	7	10	13	13	20	4	7	10	13	14	20	34	0.8%
60 PLUS	2	1	1	0	3	1	11	14	19	18	30	32	13	15	20	18	33	33	66	1.6%

TOTAL COUNT: 4180

NUMBER OF OCCURRENCES OF INVALID DATA: 0

BEST COPY AVAILABLE

HARFORD COMMUNITY COLLEGE
AGE DISTRIBUTION
FALL 1981 10/02/81

AGE	FULL-TIME DAY M	FULL-TIME DAY F	FULL-TIME EVE M	FULL-TIME EVE F	FULL-TIME TOT M	FULL-TIME TOT F	PART-TIME DAY M	PART-TIME DAY F	PART-TIME EVE M	PART-TIME EVE F	PART-TIME TOT M	PART-TIME TOT F	COMBINED DAY M	COMBINED DAY F	COMBINED EVE M	COMBINED EVE F	COMBINED TOT M	COMBINED TOT F	GRAND TOTAL	PERCENT OF TOTAL COUNT
UNDER 18	34	47	0	0	34	47	13	26	18	15	28	41	49	73	18	15	62	88	150	3.4%
18	199	202	1	1	200	203	35	55	23	32	58	87	284	257	24	33	258	290	548	12.4%
19	161	152	1	1	162	153	32	49	29	43	61	92	193	201	30	44	223	245	468	10.6%
20	83	75	3	1	86	76	51	47	30	53	81	100	134	122	33	54	167	176	343	7.8%
21 - 25	78	85	2	3	75	88	88	134	196	201	284	335	161	219	198	204	359	423	782	17.8%
26 - 30	23	57	0	0	23	57	59	135	156	203	214	338	82	192	155	203	237	395	632	14.4%
31 - 35	11	35	1	0	12	35	38	134	145	234	183	368	49	169	146	234	195	403	598	13.6%
36 - 40	6	18	1	1	7	19	16	114	76	126	92	240	22	132	77	127	99	259	358	8.1%
41 - 45	0	8	1	0	1	8	2	57	52	91	54	148	2	65	53	91	55	156	211	4.8%
46 - 50	3	2	1	0	4	2	7	30	38	48	45	78	10	32	38	48	49	80	129	2.9%
51 - 55	1	1	1	0	2	1	6	24	23	38	29	62	7	25	24	38	31	63	94	2.1%
56 - 59	0	0	0	0	0	0	2	5	10	8	12	13	2	5	10	8	12	13	25	0.6%
60 PLUS	1	0	0	0	1	0	7	19	22	16	29	35	8	19	22	16	30	35	65	1.5%

TOTAL COUNT: 4403

NUMBER OF OCCURENCES OF INVALID DATA: 32

SEX CODE ERRORS 0027
DAY / EVENING ERRORS 0000

BIRTH DATE ERRORS 0005

BEST COPY AVAILABLE

HARFORD COMMUNITY COLLEGE
AGE DISTRIBUTION
FALL 1982 09/29/82

M10550

AGE	FULL-TIME DAY M	DAY F	EVE M	EVE F	TOT M	TOT F	PART-TIME DAY M	DAY F	EVE M	EVE F	TOT M	TOT F	COMBINED DAY M	DAY F	EVE M	EVE F	TOT M	TOT F	GRAND TOTAL	PERCENT OF TOTAL COUNT
UNDER 18	50	66	0	0	50	66	18	32	17	14	35	46	68	98	17	14	85	112	197	4.2%
18	225	228	1	3	226	231	44	64	34	32	78	96	269	292	35	35	304	327	631	13.5%
19	145	146	2	2	147	148	58	67	39	49	97	116	203	213	41	51	244	264	508	10.8%
20	75	71	1	0	76	71	35	53	40	46	75	99	110	124	41	46	151	170	321	6.9%
21 - 25	78	78	3	3	81	81	95	149	185	245	280	394	173	227	188	248	361	475	836	17.9%
26 - 30	17	48	1	1	18	49	47	164	156	205	203	369	64	212	157	206	221	418	639	13.6%
31 - 35	7	27	0	0	7	27	36	169	140	198	176	367	43	196	140	198	183	394	577	12.3%
36 - 40	4	14	0	0	4	14	20	135	78	133	98	268	24	149	78	133	102	282	384	8.2%
41 - 45	1	9	0	1	1	10	13	77	59	114	72	191	14	86	59	115	73	201	274	5.9%
46 - 50	2	6	0	0	2	6	8	21	32	59	40	80	10	27	32	59	42	86	128	2.7%
51 - 55	2	2	0	0	2	2	6	23	20	34	26	57	8	25	20	34	28	59	87	1.9%
56 - 59	0	2	0	0	0	2	6	8	7	11	13	19	6	10	7	11	13	21	34	0.7%
60 PLUS	0	0	0	0	0	0	10	23	23	11	33	34	10	23	23	11	33	34	67	1.4%

TOTAL COUNT: 4683

NUMBER OF OCCURENCES OF INVALID DATA: 23

BEST COPY AVAILABLE

APPENDIX B

MARYLAND
DEPARTMENT OF STATE PLANNING
301 W. PRESTON STREET
BALTIMORE, MARYLAND 21201

HARRY HUGHES
GOVERNOR

CONSTANCE LIEDER
SECRETARY

MEMORANDUM

To: Users of Interim Projections by Age, Race and Sex

From: Michel A. Lettre, Director, Office of Planning Data MAL
Arthur Benjamin, Chief of Research AB

Subject: Enclosed Projections

Date: July 31, 1981

Introduction

The enclosed projections by age, race, and sex cohorts have been prepared by the Office of Planning Data using the interim population projections for each subdivision of the State. The interim subdivision projections were released in our memorandum of June 15, 1981. These projections replace all previous ones released by this Department including the preliminary projections released on December 10, 1981.

The projections use the Census Bureau's 1980 final counts of population and recently released State level census counts on age, race, and sex of the population. When more detailed census information on the age, sex, and race of each political subdivision's population is released, a new set of projections will be developed. We anticipate that such revisions will not be published before the Spring of 1982.

The age, race and sex projections are controlled to county totals projected to the year 2000. The county projections of total population are developed independently. They are essentially judgemental being based upon county anticipations concerning future development and a careful examination of recent past trends in population change by the Planning Data Office.

Each Maryland county was asked to assist in determining its future level of population growth and these levels were related to a State-wide population control total. The State-wide control total is a baseline population projection recently released by the Commerce Department's Bureau of Economic Analysis (BEA). The BEA State projections were developed by that agency through the use of a model which relates regional change in economic growth to demographic variables.* Prior to scaling each of the county projections to the State-wide control total, the BEA projection was adjusted for the 1980 final census count. In addition, a variance of +1% in 1985 and 1990 and +2.5% in 2000 was added to the projected population.

Base Population Data

The interim population projections are based on Office of Planning Data estimates of the 1980 population by age, race and sex for each political subdivision of the State.

* For additional information, see "Regional and State Projections of Income, Employment and Population to the Year 2000", Survey of Current Business, November 1980.

The 1980 Census population counts by age, race and sex for the State's subdivisions are not scheduled to be released by the Census Bureau until 1981. To obtain the interim 1980 population estimates, the following available data bases were used:

1. An experimental file developed by the Census Bureau for the National Cancer Institute (NCI) which provides estimates of the population by age, race and sex for all counties in the State and Baltimore City for the period 1970-1978;

2. Provisional 1980 Census data received from the Bureau in an unpublished format showing State level population by age, race and sex; and

3. Final 1980 Census population counts by race for the counties and Baltimore City (PHC80-V-22)

The procedure used to derive the interim 1980 estimates of each subdivision's population by age, race and sex met the following criteria:

1. For a given subdivision, the sum of the population over the appropriate age and sex groupings equaled the final 1980 Census subdivision population counts by race (PHC80-V-22); and

2. The sum of the age, race and sex specific populations over all the subdivisions of the State equaled the provisional 1980 Census data on State level population by age, race and sex.

To obtain the estimates of the subdivision population consistent with the above two criteria, the following steps were taken:

1. The NCI experimental file on subdivision population by age, race and sex for 1978 was survived to 1980 using the cohort-component method. The resulting survived population provided preliminary age, race and sex population counts for 1980 controlled to total 1980 Census population counts for the respective subdivisions and the State as a whole;

2. The State-wide NCI population estimates for 1980 were compared to the provisional 1980 Census counts on State level population by age, race and sex. While the NCI 1980 population estimates conformed reasonably well to the 1980 Census age distribution, the NCI estimates of population by race significantly underestimated the 1980 non-white population;

3. Using the NCI 1980 estimates for each political subdivision of population by race and sex along with the 1980 Census population figures on race for the political subdivision and race and sex for the State level, estimates of population by sex for the white and non-white populations were made for each subdivision. The resulting estimates by sex and race were made such that the sum of the male and female populations equaled the 1980 Census counts for population by race for each subdivision (PHC80-V-22). In addition, the sum over all subdivisions by sex and race equaled the 1980 Census counts for the State.

4. Finally, the NCI 1980 estimates of population by age, race and sex for each political subdivision were used along with the 1980 estimates of subdivision population by race and sex (from step 3) and the 1980 Census counts for State level population by age, race and sex to derive 1980 subdivision population estimates. The resulting subdivision population estimates for 1980 conformed to the two criteria listed previously.

While the resulting 1980 population estimates by age, race and sex for each of the political subdivisions will differ from the counts ultimately released by the Bureau based on the 1980 Census, they do represent a significantly improved estimate from that provided by simply surviving the NCI file to 1980.

Fertility Data and Assumptions

Age and race specific fertility rates for each county were developed using 1978 data on the number of females in the childbearing ages and the number of births by age and race of mother.* Age and race specific rates for each political subdivision were projected by five year periods by applying the expected percent changes in age-specific rates for the United States. Series II was used for the white population and the Series I assumption was used for the non-white population. The Series II assumption (2.1 average number of lifetime births per woman) appeared to be tracking better for whites than Series I or III at the national level. Despite an assumed degree of convergence of black and white fertility levels, Series I tracked better than Series II in projecting the national black population. Therefore, Series I (2.7) was selected for non-white fertility.

Mortality Data and Assumptions

Five year age, race and sex specific survival rates were calculated from 1978 life tables for the United States for white males and females and non-white males and females.* For purposes of these projections, the survival rates were assumed to remain constant throughout the projection period.

Migration Data and Assumptions

Five year age, race and sex specific migration rates were calculated for each political subdivision for the period 1973-1978.* These rates were derived from the NCI file by surviving the 1973 population to 1978 based on births and deaths only. This resulted in a closed population, i.e. one in which migration has not occurred. The closed population for 1978 was then subtracted from the actual 1978 population with the difference for each age, race and sex group representing net migration. The age, race and sex specific migration rates were then calculated by dividing the net migration for each group by the closed population for that same group.

Special Population Data and Assumptions

Certain identifiable groups within the population deviate significantly from the character of the population as a whole. The one such group found in Maryland for which limited data is currently available is the military population. Since the change in this population is related to different factors then that causing change in the rest of the population, this group needs to be identified.

* Tables showing all rates are available upon request.

Estimates for the 1978 military population by age, race and sex for each subdivision were made based on 1970 military population figures and changes in each subdivision's population between 1978 and 1990. For purposes of these projections the 1978 estimates of military population by political subdivision were assured to remain constant over the projection period.

Population Projection Methodology

A cohort-component technique was used to prepare the projections. This method of population projection permits the separate determination of the three components of population change - births, deaths and net migration for each age, race and sex group. The method requires base year five (5) year cohort detail typically obtained from a decennial census. Since Census data on age, race and sex of each political subdivision's population is not currently available for 1980, the interim 1980 population estimates (as described in the section on Base Population Data) were used. The approach used to develop the age, race and sex specific population projections for each political subdivision is described below.

First, the estimates of military population were subtracted from the 1980 interim population estimates to derive the estimated civilian population. The 1980 estimated civilian population for each age, race and sex group was survived to 1985 using the fertility and survival rates described previously. This resulted in a closed civilian population for 1985, i.e. one in which migration had not been accounted for. To the civilian 1985 population was added back the military population to obtain a total closed population.

The closed population was compared to the independently projected 1985 control total for the subdivision's population. The difference between the control and the closed populations represented the anticipated net migration. Net migration figures were determined for each of the four race (white and non-white) and sex (male and female) combinations. An average net migration rate was then calculated by dividing the total race and sex specific net migration figure by the projected closed population.

This net migration rate was compared to the average historical net migration rate calculated for the period 1973-1978. The ratio of the average projected migration rate to the average historical net migration rate was calculated. This ratio represented a migration adjustment factor and was multiplied by the historical age specific migration rates (i.e. those calculated for 1973-1978) to derive estimated age specific migration rates for the period 1980-1985. The age specific migration rates for each of the four race and sex combinations were multiplied times the 1985 closed population figures to derive the preliminary projected 1985 population counts by age, race and sex.*

* In a few instances the procedure described above for distributing the net migration was altered slightly. In those jurisdictions with small non-white populations (i.e. less than 500 non-white males or females or less than 30 non-whites males or females in a given five (5) year age cohort) the overall migration rate was assumed constant over all age cohorts. In addition, in those few instances where the migration adjustment factor (i.e. ratio of average projected migration rate to the average historical migration rate) was a large number, then the adjustment factor was set at a value that would not unduly alter or distort the historical migration rates.

The total preliminary 1985 projected population for each race and sex combination was compared to the independently projected 1985 control totals. The difference between the two populations represented the revised migration adjustment needed to make the 1985 projection equal the control totals. The revised migration adjustment was distributed among the age groups for each race and sex combination and a revised 1985 projected population was calculated.

The resulting population by age, race and sex represented the final projection for 1985. This procedure was then repeated in a similar manner to derive the age, race and sex specific population projections for 1990, 1995 and 2000 respectively.

MAL:AB:mv

Enclosure

APPENDIX C

MARYLAND
DEPARTMENT OF STATE PLANNING
301 W. PRESTON STREET
BALTIMORE, MARYLAND 21201

HARRY HUGHES
GOVERNOR

CONSTANCE LIEDER
SECRETARY

MEMORANDUM

TO: Users of Interim Projections by Age and Sex

FROM: Michel A. Lettre, Director, Office of Planning Data
Arthur Benjamin, Chief of Research & State Data Center

DATE: March 30, 1982

SUBJECT: Updated Interim Projections

The enclosed "updated interim projections" by age and sex have been prepared using recently released census subdivision level counts by age and sex. The subdivision level age and sex counts were not available when we prepared the interim population projections (July 1981) for age, race and sex. At that time, the 1980 age detail was estimated for each subdivision by using State level age detail. The methods used to accomplish this and prepare the interim projections are described in the memorandum dated July 31, 1981 (enclosed).

The "updated interim projections" (March 1982) are controlled to the same projected subdivision totals for 1985, 1990, 1995, and 2000 used to develop the interim projections of July 1981. Also used in the updated interim projections are more recent birth data for the first nine months of 1981. This data are used to update the age and sex specific fertility rates in the model for estimating the number of births for the projected years.

Accordingly, the updated figures should provide improved age cohort projections for each subdivision of the State.

AB/ls

Enclosures

RECEIVED
APR 19
INSTITUTIONAL DEVELOPMENT

TELEPHONE: 301-383-5664
OFFICE OF STATE PLANNING DATA

HARFORD COUNTY

DSP INTERIM POPULATION PROJECTIONS
BY AGE, RACE AND SEX
1980-2000

TOTAL POPULATION

	1980				1985				1990			
	MALE	FEMALE	TOTAL	PERCENT DIST.	MALE	FEMALE	TOTAL	PERCENT DIST.	MALE	FEMALE	TOTAL	PERCENT DIST.
0-4	5180	4970	10150	6.96	6288	5623	11911	7.64	6379	5771	12150	7.36
5-9	6145	5867	12012	8.23	5489	5164	10653	6.83	6541	5771	12312	7.46
10-14	7254	6823	14079	9.65	6226	5885	12111	7.76	5523	5162	10685	6.48
15-19	8418	7050	15468	10.60	7581	6917	14498	9.29	6538	5949	12487	7.57
20-24	6280	5766	12046	8.25	9094	7337	16431	10.53	8343	7103	15446	9.36
25-29	5805	6030	11835	8.11	5631	6073	11704	7.50	8506	7608	16114	9.77
30-34	6559	6779	13338	9.14	5905	6157	12062	7.73	5647	6141	11788	7.14
35-39	5783	5834	11617	7.96	6769	6920	13689	8.78	6029	6233	12262	7.43
40-44	4704	4541	9245	6.34	5725	5818	11543	7.40	6666	6888	13554	8.21
45-49	3921	3774	7695	5.27	4690	4561	9251	5.93	5683	5820	11503	6.97
50-54	3875	3650	7525	5.16	3823	3698	7521	4.82	4557	4466	9023	5.47
55-59	3238	3472	6710	4.60	3591	3494	7085	4.54	3535	3549	7084	4.29
60-64	2392	2447	4839	3.32	2901	3311	6212	3.98	3223	3331	6554	3.97
65-69	1653	1875	3528	2.42	1998	2307	4305	2.76	2435	3108	5543	3.36
70-74	1030	1365	2395	1.64	1337	1690	3027	1.94	1616	2082	3698	2.24
75-79	614	1032	1646	1.13	749	1130	1879	1.20	971	1401	2372	1.44
80-84	337	690	1027	.70	403	804	1207	.77	489	869	1358	.82
85+	226	547	773	.53	250	656	906	.58	290	775	1065	.65
TOTAL	73416	72512	145928	100.00	78450	77545	155995	100.00	82971	82027	164998	100.00

PROJECTIONS PREPARED BY MARYLAND DEPARTMENT OF STATE PLANNING
MARCH, 1982

BEST COPY AVAILABLE

HARFORD COUNTY

DSP INTERIM POPULATION PROJECTIONS
BY AGE, RACE AND SEX
1980-2000

TOTAL POPULATION

	1995				2000			
	MALE	FEMALE	TOTAL	PERCENT DIST.	MALE	FEMALE	TOTAL	PERCENT DIST.
0-4	6647	6072	12719	7.35	5680	5280	10960	6.23
5-9	6543	5856	12399	7.17	6574	5956	12530	7.12
10-14	6564	5772	12336	7.13	6514	5849	12363	7.02
15-19	5845	5211	11056	6.39	6890	5781	12671	7.20
20-24	7456	6046	13502	7.80	7062	5131	12193	6.93
25-29	7583	7227	14810	8.56	6402	5814	12216	6.94
30-34	8496	7647	16143	9.33	7302	7125	14427	8.20
35-39	5685	6172	11857	6.85	8308	7525	15833	9.00
40-44	5865	6196	12061	6.97	5397	6111	11508	6.54
45-49	6560	6846	13406	7.75	5599	6054	11653	6.62
50-54	5498	5700	11198	6.47	6263	6703	12966	7.37
55-59	4230	4303	8533	4.93	5132	5543	10675	6.07
60-64	3181	3382	6563	3.79	3839	4095	7934	4.51
65-69	2730	3118	5848	3.38	2766	3137	5903	3.35
70-74	1969	2800	4769	2.76	2205	2793	4998	2.84
75-79	1171	1733	2904	1.68	1418	2345	3763	2.14
80-84	621	1059	1680	.97	713	1249	1962	1.11
85+	345	872	1217	.70	425	1020	1445	.82
TOTAL	84989	86012	173001	100.00	88489	87511	176000	100.00

PROJECTIONS PREPARED BY MARYLAND DEPARTMENT OF STATE PLANNING
MARCH, 1982

BEST COPY AVAILABLE

APPENDIX D

Methodological Note

As often is the case, a number of data massages were necessary to conduct this study. The various manipulations were based on reasonable statistical assumptions and are detailed below:

(1) The population values between the five-year projections were interpolated by assuming equal intervals.

(2) The population totals were projected back to 1979 from 1980 by assuming the same annual change as from 1980-1990.

(3) The age cohort group 17-19 was extrapolated from the Department of State Planning category 15-19 by taking 60 percent of the total.

(4) The Registrar Reports and Census Data age cohorts did not match exactly.

Census	Registrar Reports
17-19	under 18-19
20-24	20-25
25-29	26-30
30-34	31-35
35-39	36-40
40-over	41-over

Differences were assumed to be equally distributed.

(5) Missing data for age cohort groups in the Registrar Reports were added back into the totals proportionally to existing data keeping the total enrollment constant.

	Number of Missing Cases
1979	20
1980	0
1981	32
1982	23

(6) The total projected values were calculated by projecting by the market share of each age cohort into the projected population values and then summing down.

(7) FTE projections for a fiscal year were based upon the proportion of Fall 1982 FTE's to the total FTE's for FY 1983. The Fall to Year Credit Multiplier used was 2.110314.

ERIC Clearinghouse for Junior Colleges
8118 Math-Sciences Building
University of California
Los Angeles, California 90024

77

JUL 15 1983